

**FACT SHEET**

as required by LAC 33:IX.3111 for major LPDES facilities, for draft Louisiana Pollutant Discharge Elimination System Permit No. LA0043940; AI 1600; PER20080001 to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** City of Harahan  
Harahan Wastewater Treatment Plant  
6437 Jefferson Highway  
Harahan, Louisiana 70123
- II. **PREPARED BY:** Darlene Bernard
- DATE PREPARED:** January 29, 2009
- III. **PERMIT ACTION:** reissue LPDES permit LA0043940, AI 1600; PER20080001

LPDES application received: May 5, 2008

The application was not received 180 days prior to the expiration date of the permit, as required by the previous permit.

EPA has retained enforcement authority.

Previous LPDES permit effective: August 1, 2003

Previous LPDES permit expired: July 31, 2008

IV. **FACILITY INFORMATION:**

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the City of Harahan.
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located at 1000 Dickory Ave., at the corner of Dickory Ave. and Mounes St.
- D. The treatment facility consists of an activated sludge treatment plant. Disinfection is by chlorination.
- E. Outfall 001

Discharge Location: Latitude 29° 56' 13" North  
Longitude 90° 12' 57" West

Description: treated sanitary wastewater

Design Capacity: 1.6 MGD

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Type of Flow Measurement which the facility is currently using:

Badger Ultrasonic Totalizing Flow Meter/Continuous Recorder

## V.

**RECEIVING WATERS:**

The discharge is into the Mississippi River in Subsegment 070301 of the Mississippi River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The **critical low flow** (7Q10) of the Mississippi River is 141,955 cfs.

The **hardness value** is 149.7 mg/l and the **fifteenth percentile value for TSS** is 26.6 mg/l.

The designated uses and degree of support for Subsegment 070301 of the Mississippi River Basin are as indicated in the table below<sup>1/</sup>:

Overall Degree of Support for Segment	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Full	Full	Full	Full	N/A	Full	N/A	N/A

<sup>1/</sup> The designated uses and degree of support for Subsegment 070301 of the Mississippi River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

## VI.

**ENDANGERED SPECIES:**

The receiving waterbody, Subsegment 070301 of the Mississippi River Basin, is listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS) as habitat for the Pallid Sturgeon, which is listed as an endangered species. Since effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat, LDEQ has determined that the issuance of this LPDES permit is not likely to adversely affect the Pallid sturgeon or its aquatic habitats. As instructed by the FWS in a letter dated November 17, 2008, from Rieck (FWS) to Nolan (LDEQ), this fact sheet has been sent to the FWS for review and consultation.

## VII.

**HISTORIC SITES:**

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

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VIII.

**PUBLIC NOTICE:**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Darlene Bernard  
Permits Division  
Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

IX.

**PROPOSED PERMIT LIMITS:**

Subsegment 070301, Mississippi River-from Monte Sano Bayou to Head of Passes, is not listed on LDEQ's Final 2006 303(d) List as impaired, and to date no TMDL's have been established. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

The previous permit contained reporting requirements for Phosphorous and TKN. These reporting requirements were for informational gathering purposes because the receiving waterbody was listed as impaired for phosphorous and nitrogen. However, since the issuance of the previous permit, the receiving waterbody has been designated as fully supporting of its designated uses and therefore is not considered impaired. Therefore, the reporting requirement for both parameters has been removed from the permit.

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**Final Effluent Limits:****OUTFALL 001 -**

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD <sub>5</sub>	400	30 mg/l	45 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size which discharge into the Mississippi River and previous permit conditions.
TSS	400	30 mg/l	45 mg/l	Since there are no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.

**Other Effluent Limitations:****1) pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

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## 2) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

## 3) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.a, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

## Toxicity Characteristics

In accordance with EPA's Region 6 Post-Third Round Toxics Strategy, permits issued to treatment works treating domestic wastewater with a flow (design or expected) greater than or equal to 1 MGD shall require biomonitoring at some frequency for the life of the permit or where available data show reasonable potential to cause lethality, the permit shall require a whole effluent toxicity (WET) limit (*Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards*, April 16, 2008 VERSION 6).

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. LAC 33:IX.1121.B.3. provides for the use of biomonitoring to monitor the effluent for protection of State waters. The biomonitoring procedures stipulated as a condition of this permit are as follows:

The permittee shall submit the results of any biomonitoring testings performed in accordance with the LPDES Permit No. LA0043940, **Biomonitoring Section** for the organisms indicated below.

Chronic toxicity tests are generally required of those discharges with potential toxicity using critical dilutions as determined by an applicable dilution model. However, equivalent acute toxicity testing is allowed, and is being proposed in this permit, in lieu of chronic toxicity testing for discharges that have a critical dilution of 5% or less.

TOXICITY TESTSFREQUENCY

48 Hour Definitive Toxicity Test  
using Daphnia pulex

1/Year

48 Hour Definitive Toxicity Test  
using fathead minnow (Pimephales promelas)

1/Year

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional concentrations shall be 0.02%, 0.03%, 0.04%, 0.05%, and 0.07%. The biomonitoring critical dilution is defined as 0.05% effluent. The critical dilution is calculated in Appendix B-1 of this fact sheet. According to the Implementation of State Standards, acute toxicity testing in addition to, or in lieu of, chronic toxicity testing may be imposed for discharges that have a critical dilution of five percent (5%) or less. An acute to chronic ratio has been applied in the calculations. Results of all

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dilutions shall be documented in a full report according to the test method publication mentioned in the **Biomonitoring Section** under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in the **Biomonitoring Section** of the permit.

The permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.2383. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

#### Toxic Substances

Due to drinking water supply being a designated use, the permittee shall analyze the final effluent for the presence of the following toxic substances. The MQL is intended as action levels. Should a toxic substance exceed the MQL, the permittee shall determine the source of the substance and take whatever measures necessary to secure abatement in order to protect all drinking water sources downstream of the discharge. Records of any actions taken shall be made available upon request by any duly authorized regional inspectors and/or LDEQ Headquarter representatives.

A report containing the results of the lab analysis indicating if any toxic substances have exceeded the MQL including a brief summary of any abatement taken at the time, must be submitted to this Office within 20 days of completion of the analysis. **The first analysis shall be performed within 1 year following the effective date of the permit, and every year thereafter, by a 24-hour composite sample type.**

Reports must be submitted to the following address:

Department of Environmental Quality  
Office of Environmental Compliance  
**Enforcement Division**  
Post Office Box 4312  
Baton Rouge, Louisiana 70821-4312

In addition, enforcement authority has been retained by EPA. Therefore, the report must also be submitted to the following address until notification that enforcement authority has been assumed by LDEQ:

U.S. Environmental Protection Agency, Region 6  
Water Enforcement Branch, 6 EN-WC  
1445 Ross Avenue  
Dallas, Texas 75202

#### TOXIC SUBSTANCES

TOXIC SUBSTANCES (CAS NO.)	Required MQL (ug/l)
<b>VOLATILE ORGANIC CHEMICALS</b>	
Acrolein (107-02-8)	50
acrylonitrile (107-13-1)	50
benzene (71-43-2)	10
bromodichloromethane (dichlorobromomethane) (75-27-4)	10

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bromoform (tribromomethane) (75-25-2)	10
carbon tetrachloride (56-23-5)	10
chlorobenzene (108-90-7)	10
chloroform (trichloromethane)	10
chloromethane (methyl chloride) (74-87-3)	50
1,1-dichloroethane (75-34-3)	10
1,2-dichloroethane (107-06-2)	10
1,1-dichloroethylene (75-35-4)	10
dichloromethane (methylene chloride) (75-09-2)	20
cis-1,3-dichloropropene	10
trans-1,3-dichloropropene	10
ethylbenzene (100-41-4)	10
para-dichlorobenzene	---
1,1,2,2-tetrachloroethane (79-34-5)	10
tetrachloroethylene (127-18-4)	10
toluene (108-88-3)	10
1,1,1-trichloroethane (71-55-6)	10
1,1,2-trichloroethane (79-00-5)	10
trichloroethylene (79-01-6)	10
vinyl chloride (chloroethylene) (75-01-4)	10
<b>ACID EXTRACTABLE ORGANIC CHEMICALS</b>	
2-chlorophenol (95-57-8)	10
3-chlorophenol	10
4-chlorophenol	10
2,4-dichlorophenol (120-83-2)	10
2,3-dichlorophenol	10
2,5-dichlorophenol	10
2,6-dichlorophenol	10
3,4-dichlorophenol	10
2,4-dinitrophenol (51-28-5)	50
pentachlorophenol (87-86-5)	50
phenol (108-95-2)	10
2,4,6-trichlorophenol (88-06-2)	10
<b>BASE/NEUTRAL EXTRACTABLE ORGANIC CHEMICALS</b>	
anthracene (120-12-7)	10
benzidine (92-87-5)	50
bis(2-chloroethyl)ether (111-44-4)	10
bis(2-chloro-1-methylethyl)ether (39638-32-9)	10
bis(2-ethylhexyl)phthalate (117-81-7)	10
di-n-butyl phthalate (84-74-3)	10

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1,3-dichlorobenzene (541-73-1)	10
1,2-dichlorobenzene (95-50-1)	10
1,4-dichlorobenzene (106-46-7)	10
3,3-dichlorobenzidine (91-94-1)	50
diethyl phthalate (84-66-2)	10
dimethyl phthalate (131-11-3)	10
2,4-dinitrotoluene (121-14-2)	10
1,2-diphenylhydrazine (122-66-7)	20
fluoranthene (206-44-0)	10
hexachlorobenzene (118-07-1)	10
hexachlorobutadiene (87-68-3)	10
hexachlorocyclopentadiene (77-47-4)	10
hexachloroethane (67-72-1)	20
isophorone (78-59-1)	10
nitrobenzene (98-95-3)	10
N-nitrosodimethylamine (62-75-9)	50
N-nitrosodiphenylamine (86-30-6)	20
<b>PESTICIDES &amp; PCBs</b>	
aldrin (309-00-2)	0.05
PCB's (Total)	1.0
gamma-BHC (Lindane, Hexachlorocyclohexane) (58-89-9)	0.05
chlordane (57-74-9)	0.2
4,4"DDD (TDE) (72-54-8)	0.1
4,4"DDE (72-55-9)	0.1
4,4"DDT (50-29-3)	0.1
Dieldrin (60-57-1)	0.1
endosulfan I (alpha) (115-29-7)	0.1
endosulfan II (beta) (115-29-7)	0.1
endrin (72-20-8)	0.1
heptachlor (76-44-8)	0.05
Methoxychlor	---
2,3,7,8-tetrachlorodibenzo-p-dioxin (1764-01-6)	---
toxaphene (8001-35-2)	5.0
2,4-dichlorophenoxyacetic acid (2,4-D) (94-75-7)	10
2-(2,4,5-trichlorophenoxy)propionic acid	4
<b>METALS</b>	

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antimony (7440-36-0)	60
arsenic (7440-38-2)	10
Barium	---
beryllium (7440-41-7)	5
cadmium (7440-43-9)	1
chromium III (16065-83-1)	10
chromium VI (7440-47-3)	10
copper (7550-50-8)	10
lead (7439-92-1)	5
Flouride	---
mercury (7439-97-6)	0.2
nickel (7440-02-0)	40
nitrate (as N)	---
selenium (7782-49-2)	5
silver (7440-22-4)	2
thallium (7440-28-0)	10
zinc (7440-66-6)	20
<b>MISCELLANEOUS</b>	
Cyanide	20
total phenols	5

## X.

PREVIOUS PERMITS:

LPDES Permit No. LA0043940: Effective: August 1, 2003

Expired: July 31, 2008

<u>Effluent</u> <u>Characteristic</u>	<u>Discharge Limitations</u>			<u>Monitoring Requirements</u>	
	<u>Monthly</u> <u>Avg.</u>	<u>Monthly</u> <u>Avg.</u>	<u>Weekly</u> <u>Avg.</u>	<u>Measurement</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>
Flow	---	Report	Report	Continuous	Recorder
BOD <sub>5</sub>	400 lbs/day	30 mg/l	45 mg/l	2/week	6 Hr Composite
TSS	400 lbs/day	30 mg/l	45 mg/l	2/week	6 Hr Composite
pH	Range (6.0 su – 9.0 su)			2/week	Grab
Fecal Coliform					
Colonies/100ml	---	200	400	2/week	Grab
Phosphorous	Report	Report	Report	1/quarter	Grab
Kjeldahl Nitrogen					
(Total as N)	Report	Report	Report	1/quarter	Grab
Toxic Substances	---	---	---	1/year	24 Hr Composite
Biomonitoring					
<i>Pimephales promelas</i>	---	Report	Report	1/year	24 Hr Comp
<i>Daphnia pulex</i>	---	Report	Report	1/year	24 Hr Comp

The permit contains biomonitoring.

The permit contains pollution prevention language.

The permit contains pretreatment option 1 language.

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### ENFORCEMENT AND SURVEILLANCE ACTIONS:

#### A) Inspections

A review of the files indicates the following most recent inspections performed for this facility.

Date – March 20, 2007

Inspector - LDEQ

Findings and/or Violations –

1. Permit: Satisfactory – The permittee was issued an LPDES Water Discharge Permit, LA0043940, effective dates August 1, 2003, through July 31, 2008.
2. Records/Reports: Satisfactory – DMR's were reviewed onsite. No excursions were reported. The annual toxic substances DMR for 2006 was lost during Hurricane Katrina. The MWPP is to be provided at a later date for review.
3. Facility Site Review: Satisfactory
4. Effluent: Satisfactory – Some floating solids were in the clarifier, but the water was translucent. The sludge level is adequate for proper treatment. The aeration chambers were operational. The mixed liquor was a dark brown color.
5. Flow Measurement: Satisfactory – The permit requirement for flow is Continuous/Recorder. The facility's flow meter is calibrated by ControlWork-Breard-Gardner Water Management Group. A copy of the last calibration on 1/20/06 was provided.
6. Self-Monitoring Program: Satisfactory – An automatic sampler is used to collect composite samples. The thermometer was reading 4°C.
7. Laboratory: Satisfactory – The Veolia East Bank Lab analyzes all the water samples collected for compliance at this plant.
8. Operations and Maintenance: Satisfactory – The aeration chambers were operational. An automatic bar screen & debris compactor is operating at the headworks. All the sludge returns were operational.

Date – September 9, 2008

Inspector – LDEQ

Findings and/or Violations –

A Hurricane Assessment was conducted to assess damage from Hurricane Gustav. Facility lost power for one (1) day. Plant had an overflow at outfall due to power outage. Overflow was reported to LDEQ.

Date – September 17, 2008

Inspector – LDEQ

Findings and/or Violations –

A Hurricane Assessment was conducted to assess damage from Hurricane Ike. No Damage was done to the facility.

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**B) Compliance and/or Administrative Orders**

A review of the files indicates that enforcement actions have been administered against this facility as follows:

January 7, 2008 –

Administrative Order Docket No. CWA-06-2008-1733 – AO was issued for failure to submit annual sludge discharge monitoring reports for calendar year 2006.

**C) DMR Review**

There were no excursions noted for the period January, 2006 to November, 2008.

**XII.****ADDITIONAL INFORMATION:**

LDEQ reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future. Additional limitations and/or restrictions are based upon water quality studies and can indicate the need for advanced wastewater treatment. Water quality studies of similar dischargers and receiving water bodies have resulted in monthly average effluent limitations of 5mg/L CBOD<sub>5</sub> and 2 mg/L NH<sub>3</sub>-N. Prior to upgrading or expanding this facility, the permittee should contact LDEQ to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

The nearest drinking water intakes, East Jefferson Waterworks District 1 and New Orleans Carrollton Waterworks are located 4.6 and 5.3 river miles respectively downstream from the discharge point.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 1.6 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD}_5: 8.34 \text{ gal/lb} \times 1.6 \text{ MGD} \times 30 \text{ mg/l} = 400 \text{ lbs/day}$$

The Monitoring Requirements, Sample Types, and Frequency of Sampling for the facility are described below:

**Outfall 001 – treated sanitary wastewater****Effluent Characteristics**

Flow	
BOD <sub>5</sub>	
Total Suspended Solids	
Fecal Coliform Bacteria	
pH	
Biomonitoring	<u>Daphnia pulex</u>
	<u>Pimephales promelas</u>
Toxic Substances	

**Monitoring Requirements**

<u>Measurement</u>	<u>Sample</u>
<u>Frequency</u>	<u>Type</u>
Continuous	Recorder
2/week	6 Hr. Composite
2/week	6 Hr. Composite
2/week	Grab
2/week	Grab
1/year	24 Hr. Composite
1/year	24 Hr. Composite
1/year	24 Hr. Composite

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**Pretreatment Requirements**

Based upon consultation with LDEQ pretreatment personnel, LDEQ Option I Pretreatment Language is required for this facility.

**Pollution Prevention Requirements**

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report each year for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

<b>Audit Period Begins</b>	<b>Audit Period Ends</b>	<b>Audit Report Completion Date</b>
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

**Stormwater Discharges**

Because the design flow of the East Bank Sewage Treatment Plant is equal to or greater than 1.0 MGD and in accordance with LAC 33:IX.2511.B.14.i, the facility may contain storm water discharges associated with industrial activity. Therefore, in accordance with LAC 33:IX.2511.A.1.b, specific requirements addressing stormwater discharges will be included in the discharge permit.

XIII

**TENTATIVE DETERMINATION:**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

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**REFERENCES:**

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

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Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, City of Harahan, Harahan Wastewater Treatment Plant, May 05, 2008.